Week 2 Questions

Ratio Formulas

Ratio	Formula
Return on capital employed	***Operating profit*** / ***Equity + Non-Current Liabilities***
Gross profit margin	***Gross profit*** / ***Revenue***
Operating profit margin	***Operating profit*** / ***Revenue***
Asset turnover	***Revenue*** / ***Equity + non-current liabilities***
Inventory days	***Closing Inventory*** / ***Cost of sales*** ***x 365 days***
Trade receivable days	***Closing Trade receivables*** / ***Revenue*** ***x 365 days***
Trade payable days	***Closing Trade payables*** / ***Cost of sales*** ***x 365days***
Current ratio	***Current Assets*** / ***Current Liabilities***

Quick ratio	***<u>Current Assets – Inventory</u>*** ***Current Liabilities***
Gearing	***<u>Debt</u>*** ***Equity***
Interest cover	***<u>Operating profit</u>*** ***Finance cost***
Dividend cover	***<u>Profit for the year</u>*** ***Dividend***

Question 1 (Adapted from Atrill and Mclaney)

The financial statements of Corus PLC are provided below. They are wholesale business dealing in rugs and curtains.

Statement of Financial Position as at 31st March

(All figures in £million)

	2016	2017
ASSETS		
Non-Current Assets		
Land and Building	381	427
Fixtures and Fittings	129	160
	510	587
Current Assets		
Inventories at Cost	300	406
Trade Receivables	240	273
Cash at Bank	4	--
	544	679
Total Assets	**1,054**	**1,266**
EQUITYANDLIABILITIES		
Equity		
0.50 ordinary shares (Note 1)	300	300
Retained Earnings	263	234
	563	534
Non-Current Liabilities		
Borrowings – 9% Loan (secured)	200	300
Current Liabilities		
Trade Payables	261	354
Tax	30	2
Short term borrowing (Bank Overdraft)	--	76
	291	432
Total Equity and Liabilities	**1,054**	**1,266**

Income Statement for year ended 31st March

(All figures in £million)

	2016	2017
Revenue (Note 2)	2,240	2,681
Cost of Sales (Note 3)	(1,745)	(2,272)
Gross Profit	**495**	**409**
Operating Expenses	(252)	(362)
Operating Profit	**243**	**47**
Interest Payments	(18)	(32)
Profit Before Tax	**225**	**15**
Corporate Tax	(60)	(4)
Profit for the Year	**165**	**11**

NOTES:

1. The market price of the shares of Corus PLC at the end of the year was £2.50 for 2016 and £1.50 for 2017.
2. All sales and purchases are made on credit.
3. The Cost of sales figure can be detailed as follows:

	2016	2017
	£m	£m
Opening Inventory	241	300
Purchases (Note 2)	1,804	2,378
	2,045	2,678
Closing Inventory	(300)	(406)
Cost of Sales	1,745	2,272

4. At 31st March 2015, the trade receivables stood at £228 million and the trade payables at £183 millions
5. A dividend of £40 million has been paid to the shareholders in respect of each of the years.
6. The business employed 13,995 staff at 31st March 2016 and 18,623 staff on 31st March 2017.
7. The business expanded its capacity during 2014 by setting up a new warehouse and distribution centre in the north of England.
8. At 1st April 2015, the total of equity stood at £438 million and the total of equity and non-current liability stood at £638 million.

<u>Required:</u>

Comment on the performance and financial position having calculated the following ratios:

Gross profit margin
Operating profit margin
Return on capital employed
Asset turnover
Inventory days
Trade receivable period
Trade payable period
Current ratio
Quick ratio
Gearing
Dividend cover
Interest Cover

Question 2

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Victular is a plc that would like to acquire a suitable private company. It has obtained the following draft financial statements for the two companies, Grappa and Merlot. They operate in the same industry and their managements have indicated that they would be receptive to a takeover.

Income Statement for the year ended 31 May 2017

	Grappa	**Merlot**
	£'000	£'000
Revenue	12,000	20,500
Cost of sales	(10,500)	(18,000)
Gross profit	1,500	2,500
Operating expenses	(240)	(500)
Operating profit	1,260	2,000
Finance costs	(210)	(600)
Profit before taxation	1,050	1,400
Taxation	(150)	(400)
Profit for the year	900	1,000
Note: dividend paid during the year	250	700

Statement of Financial Position as at 31 May 17

	Grappa		Merlot	
	£'000	**£'000**	**£'000**	**£'000**
ASSETS				
Non-current Assets		9,400		7,500
Current Assets				
Inventories	2,000		3,600	
Trade receivables	2,400		3,700	
Cash	600		0	
		5,000		7,300
Total Assets		14,400		14,800
EQUITY AND LIABILITIES				
Equity				
Share Capital	2,000		2,000	
Revaluation reserve	900		0	
Retained earnings	2,600		800	
		5,500		2,800
Non-current Liabilities				
Debentures		4,800		6,300
Current Liabilities				
Trade payables	3,100		3,800	
Tax	600		200	
Short term loans	400		500	
Overdraft	0		1,200	
0		4,100		5,700
Total equity and Liabilities		14,400		14,800

The following ratios have been calculated for Grappa and can be taken to be correct:

Return on capital employed	12.3%
Asset Turnover	1.2X
Gross profit margin	12.5%
Operating profit margin	10.5%
Current ratio	1.2:1
Inventory holding period	69 days
Trade receivables days	72 days
Trade payables payment period	106 days
Gearing	87%
Interest cover	6X
Dividend cover	3.6X

Required

1) Calculate for Merlot the ratios equivalent to all those given for Grappa above.
2) Assess the relative performance and financial position of Grappa and Merlot for the year ended 31 May 2017 to inform the directors of Victular in their acquisition decision.

Question 3

Revulsion Plc has raised additional funds by issuing a debenture of £3,200,000 at 10 per cent per annum in order to expand the business. The additional cash was received on 1 July 2016. The financial statements of the company for the years ended 30 June 2016 and 2017 are summarised below.

Statement of Financial Position as at 30 June

	2016		2017	
	£000	**£000**	**£000**	**£000**
Non-current assets				
At cost	2,800		3,600	
Accumulated depreciation	600		740	
		2,200		2,860
Current Assets:				
Inventory	5,440		6,000	
Trade receivable	3,840		6,240	
Bank	80		880	
		9,360		13,120
TOTAL ASSETS		**11,560**		**15,980**
EQUITY & LIABILITIES				
Share Capital & reserves				
Issued Share Capital	6,000		6,000	
Reserves	3,000		3,400	
		9,000		9,400
Non-current liabilities				
10% Debentures				3,200
Current liabilities				
Taxation	580		620	
Trade Payables	1,980		2,760	
		2,560		3,380
TOTAL EQUITY & LIABILITIES		**11,560**		**15,980**

Income Statement for the year ended 30 June

	2016	2017
	£000	£000
Revenue	24,000	28,000
Cost of sales	18,800	22,100
Gross profit	5,200	5,900
Administrative expenses	1120	1260
Selling and distribution	2700	2900
Operating profit	1,380	1,740
Finance costs	0	320
Profit before tax	1,380	1,420
Taxation	580	620
Profit for the year	800	800

For the year ended 30 June 2016 and 30 June 2017 dividends of £400,000 were paid.

REQUIRED:

(a) Compute the following financial performance measures for both 2016 and 2017:

i. Return on capital employed
ii. Operating profit percentage or margin;
iii. Gross profit percentage or margin;
iv. Asset turnover.
v. Current ratio
vi. Quick ratio;
vii. Inventory turnover in days;
viii. Trade receivables collection period in days,
ix. Gearing.

(b) Use the financial statements and ratios from part (a) to provide an assessment of the financial strengths and weaknesses of the company.

(c) Indicate any limitations in your analysis.